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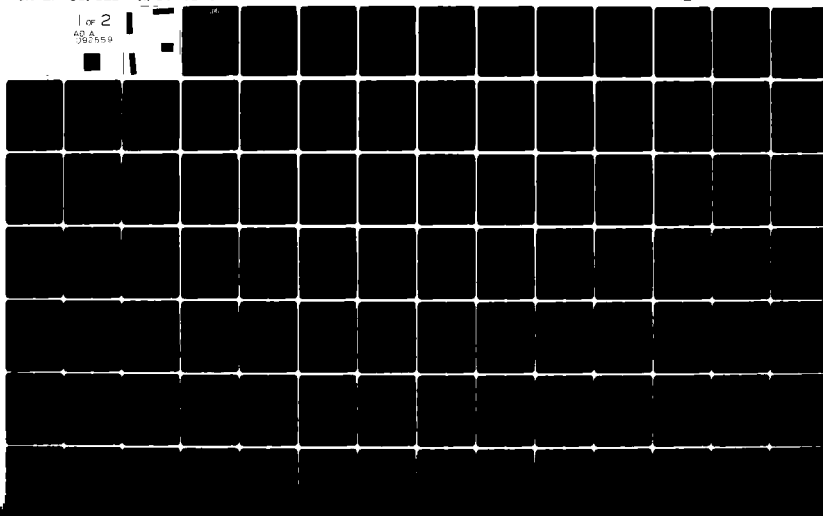
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INVESTIGATION IN CONSTRUCTION ENTREPRENEURSHIP

by

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B.S., U.S. Air Force Academy
(1977)

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May 1980

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ABSTRACT

The purpose of this thesis is to clarify the process in the establishment of a small construction firm.

The thesis has primarily studied the establishment of a construction business in the metropolitan Boston area, but the principles discussed are applicable throughout all societies which recognize an individual's pursuit of their own business.

Included is a study of general entrepreneurship, a discussion of the characteristics of the construction industry which differentiates it from a general business venture, case studies of six construction start-ups, their discussion and an overall analysis.

An attempt is made to characterize construction entrepreneurship by studying, in detail, the motivation to pursue this career progression, the transitional period, reflecting on the risks and benefits of such a move, and recommendations for future ventures.

It appears that the structure of the venture, ease of transition period, and growth of the business are all directly related to the educational background, construction experience, familiarity with the local environment, and business experience.

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C-Q Construction Corporation
Newton, Massachusetts
- Mr. Arthur Gutierrez
Gutierrez Construction Company, Incorporated
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Moscone, Incorporated
Quincy, Massachusetts
- Mr. Nicolas Rostanzo
Rostanzo & Lavoie Construction Company, Incorporated
Hopedale, Massachusetts
- Mr. Jitendra Shah
Shah Construction Company, Incorporated
Wakefield, Massachusetts
- Mr. Paul Stella
P.J. Stella Construction Corporation
Wakefield, Massachusetts

as well as the Associate General Contractors (AGC), Boston, Massachusetts, which assisted me in contacting the different contractors.

References have been made in the text to class notes which refer to an MIT Entrepreneurship class (2.942) taught by Professor George C. Newton, Jr.

I would also like to thank Audrey Cutler, who put the thesis

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INTRODUCTION

Interwoven in the history of civilization is the development of the small business. From the family-oriented agrarian societies of pre-industrial times to the community-centered services of today, small businesses were historically the backbone of the world's economy. Our own generation, however, has seen the decline of the role these family and neighborhood concerns have played in the economy. In their place has been the growth and rooting of large, more centralized industry. The development of technology and the concurrent shift of a whole society toward efficiency as a major goal has directed our emphasis, in this country, toward methods that provide more efficient production of goods. Thus, today we find small businesses in a state of decline while large industry has established itself in every sector of society.

However, many people look to the future and see the return of small business as a major force in our society. They are discovering that the control and personal gratification that small businesses provided has been lost in the maze of large industry. They are also beginning to sense that "bigness" is not always the better direction to head as it creates bureaucracies that make the concept of efficiency little more than an advertising slogan.

Inherent in bureaucracies is a standardization of action coupled with a strict selection process. This is done to buffer the core technology from the unpredictability of the natural environment but at the same time it results in an inability for bureaucracies to meet individuals' needs and goals.

Bureaucracies have grown into such an institutional force that even the actual decision makers are often powerless in the face of it. When a change is desired, big business is found to be unwielding, and inflexible to any type of moulding.

The construction industry is one of the last professions where small businesses are still a vital force. Because of its nature, construction does not often allow the standardization and economies of scale of the manufacturing industry to take place. Each project varies, designed for its specific location and to the owners personal need. Construction work is also done outdoors, subject to the weather and its unpredictability. In construction, because of each projects uniqueness, greater responsibility is given to the individual trades. Each worker is responsible for a specific part of the total project. They approach the project in their own way, and as long as it is completed in accordance with the plans and specifications the project is successful. As a result, they view each completed work as a monument of their personal creativity.

Over time, of course, big business has affected the construction industry as well. Builders, such as developers, have emerged, attempting to standardize methods of construction as well as the designs themselves. Also the growth of big, centralized

institutions has created the need for large buildings in which to house the big institutions. This, in turn, has created the need for larger construction firms that could handle more complicated projects. These firms have developed detailed organization charts, sophisticated cost and control techniques, and have manufactured many of the materials in the form of pre-fabricated parts.

This evolvement of the industry has led to a visible separation in the size and capability of American contractors. Many contractors, however, have not become involved in large projects, but continue to work in their local communities. Because it is uneconomical for large construction industries to become involved in smaller projects, and since the smaller industries do not have the capability to get involved in the larger projects, there is virtually no competition between the two. This allows each to evolve separately with the large contractors developing greater technologies of scale to complete their "mega" projects and the small contractors remaining stable at the local level. This is not to say, however, that there is no movement between the two sectors of construction. Small business owners are often wooed to the large projects by the immediate financial rewards and the subsequent economic security. Large contractors many times leave the larger firms with a desire for more control over the finished product. Large construction firms have grown to such a size that there is now a need for an entire administrative force. Universities have recognized this and now offer training in fields such as Construction Management. The large

firms, of course, wait in the wings to recruit the new graduates with promises of financial rewards and large, prestigious jobs. What many students do not understand, however, is that the small construction industry is a viable option after graduation. Many are overwhelmed by the promises of the large industry while others believe that starting their own firm either alone or in partnership is an impossibility. Because students have little exposure to small construction firms there is little opportunity to dispell these attitudes.

THESIS GOAL

This thesis will first attempt to clarify the process of entering the small construction industry. A particular focus will be on the specific areas where preparation and forethought are important. These include such diverse areas as available financing, initial motivation, family involvement, perceived risks, business management skills, and market availability.

In addition to clarifying the process of entry, this thesis will also examine some aspects of the industry as it exists today. The purpose here is to gain a better understanding of construction entrepreneurship by the study of individual paths that have been followed to start a construction business. The result of this will be a clarification of the thoughts, attitudes and motivations of those involved in the industry and an understanding of the risks and the benefits that are encountered both initially and on an on-going basis.

METHODOLOGY

When a person contemplates entering a career profession, whatever that may be, there are always a variety of considerations that need examining before a sound decision can be made. As stated in the thesis goal, this thesis will explore some of these considerations as they pertain to small business ventures in general and to the small construction industry in particular.

To create a firm foundation, the first exploration will be in prior published research. These studies cover mostly general business ventures but do touch on the construction industry and its unique conditions. They are valuable to this thesis in that they give a base from which to judge the construction industry. For instance, there are specific conditions that pertain only to the construction industry and other more general conditions that are common to all small business ventures. By understanding the similarities and the differences, a person starting out can more readily assess what is important to their situation.

The second major section of this thesis is the case studies with their accompanying discussions and comparative analysis. The research done formed a framework around which the interview questions were formed. By covering a variety of areas, these interviews give valuable insight about the construction industry today as well as about the type of person who enters

the field.

The third section of this thesis reaches beyond the research data and the actual case studies to compare briefly the two and to explore some impressions gathered throughout the process of research.

CHAPTER 1: GENERAL RESEARCH

1.1 Small Business Venture

When researching previously published materials on small businesses, there are certain key issues that consistently come to the fore. This section of the thesis has pulled out these issues for examination and consideration.

Preparation Time

As with any new venture, the time spent in preparation is very important. Most sources indicated that as much as a year may be required to do the necessary marketing studies, to prepare a business operating or financial plan, to make necessary business contacts, etc. Since this time usually has to be worked around both a present job and family commitments, the ability to balance the time spent with each, without jeopardizing any would help to make this somewhat long preparation time a positive experience.

Family Support

The starting of a business venture requires an extreme intensity which can consume all of the individual's and the family's emotions, energy and time, so it is not surprising that much emphasis is placed on family involvement and support. If the family is not prepared for this commitment

then they run the risk of becoming burdened with quarreling, bitterness and lack of attention. (Liles, 1974) Family talks can also intensify the energy of the effort as each family member begins to take part in the preparations. A definite benefit of the starting of a business is that it can exhibit a personal expression allowing all family members to participate in the process which brings food to their table and provides a roof over their head. A family committment can be especially necessary to carry everyone through the long hours, missed vacations, and other family hardships that may be met. (Baty, 1974)

Business Concept

Formalizing the business concept calls for the working out of the general idea of the business and the preparation of a business plan. There are several different, generally accepted approaches to the choice of a business concept. One strategy is to repeat a successful business concept that is already in existence, the so called "Me-Too" concept. A second idea is for a person to use a business concept which is determined to have all the ingredients of success, but may have failed for a reason such as poor management. If s/he can follow through on the idea and correct the deficiency the new business can be a success. A third concept is for a person to take an idea that has been applied successfully to one industry and apply it to another. An example of this is the electronic game industry as a follow on to electronic calculators. (Newton, 1980) Other ideas may be to start

a franchise industry or to act as a consultant in a service organization. Whatever the idea, it is important that the concept be defined in enough detail to allow a thorough market survey to be conducted and to allow potential customers, suppliers and if possible, even a close analog to be interviewed.

Legal Matters

From the very beginning the entrepreneur will be faced with a variety of legal problems that a lawyer can solve. A lawyer can assist in choosing the best form or organization. s/he can draft the incorporation papers or partnership agreement, and take care of the many other essential legal matters that will be faced. A good lawyer will be both expensive and busy, but bad legal advice is worse than none at all. This is usually because legal problems are uncovered after they are too late to correct. The lawyer chosen should be knowledgeable in starting new ventures and because this is a specialty within the profession, not all good lawyers will be able to help. Senior partners of firms who have started new ventures could be consulted for ideas.

One method of choosing a lawyer - through family or social ties - is strongly discouraged as it brings the possibility of unnecessary conflict. Perhaps the best method is to judge a person on the extent of their knowledge and on their ability to communicate. (Liles, 1974)

Job Transition

At one time or another, a person starting their own business is faced with leaving their present job. This is not always the easiest of tasks and can lead to bad feelings on both sides if not handled sensitively. Also, the method of how this is dealt with becomes significantly more important in a profession such as construction where success is built on personal contacts. Another factor to consider is a possible return to a large firm. Although most professionals attach no stigma to the failure of a small business, if ill feelings have arisen, then it may be difficult for a person to return to their career at the same seniority level. (Liles, 1974)

Before leaving a job, consideration to the economic condition of the industry and an overall analysis of all outstanding personal debts can help avoid bankruptcy. Another factor that can contribute to a good start is a choice of time that assures a full season of work, as in the case of construction. Of course, this may conflict with a present job situation. A person's old company might be a future supplier, customer or even employer and is almost always the first place where bankers, financial backers, and prospective creditors will turn when they need to check on the individual's personal integrity (Batt, 1974). This, of course, makes it particularly important to sensitively handle the job transition.

Since so much depends on a firm commitment date such as

hiring new employees, renting office space, and financing, it seems essential to plan thoroughly in advance. (Putt, 1974)

Formation of Entrepreneurial Team

If a business is to include one or more partner(s) it is in the best interest of all involved for agreements to be clear, for responsibilities to be agreed upon early including the allocation of profits; a democratic approach to decision making may sound good on paper, but it may become a disaster. (Mancuso, 1978) There are a few questions that a person can ask themselves when considering taking on a partner: Can an employee be hired to fill the same role? How compatible is this person with regards to ethical standards and willingness to work? Can the business be managed and started alone? If a business is created primarily with the energy of a single individual then s/he has the right to maintain a majority control of the business. A partnership can still be created, but the partnership can be of unequal responsibility; common stock makes this arrangement easy. But since stock represents ownership, any time it is issued, control is lost. (Baty, 1974) The benefit of controlling one's own destiny is one of the major drives for a person to start their own business. People enjoy being able to operate a business in their own manner, maintaining their own degree of moral and ethical standards. That is the reason why a small closely held business so often captures the personal expression and qualities of their creator. With the close association of a business to its creator

comes the risk of a psychological failure. A person starting any new venture puts a tremendous amount of time and energy into it to such a degree that both the business and the person become one and the same. Friends, family, and business colleagues all begin to associate the business as the entrepreneur's responsibility. If the business fails, the man or woman sees it as a personal failure, poor planning or poor execution. The experience can be shattering as the person associates the failure with an inherent incapacity or inadequacy; self-confidence is lost. A loss of self-confidence can effect the individual's ability to deal with both his or her business life and personal life, and if allowed to persist, can gain momentum in a "relentless downward spiral." (Liles, 1974)

Resolution of Financial Matters

When thinking about financial matters, the most logical step is to contact a bank. In the instance of setting up a small business, however, choosing a banker rather than a bank can cut down on time spent resolving finances. A banker is in many cases a venture capitalist and, like choosing a lawyer, it is best to have someone who communicates well. It is not particularly important that the banker have a big title or a prestigious position. It is more important that s/he approaches the venture with enthusiasm, anxious for the establishment of a long business relationship. (Mancuso, 1978)

This is the stage in the new business development when the risks of the new venture become ever so apparent. The chosen banker will ask for the entrepreneur's signature on company notes that may well exceed his or her personal net worth. (Liles, 1974) The counter-signature indicates that s/he is responsible for all debts in excess of those collected from the company. If the company fails with outstanding obligations the risk of bankruptcy becomes very possible.

Another aspect of the risks involved is the financial sacrifice (Liles, 1974). When the entrepreneur makes a commitment to the new business, the steady income from past work ends. Unless the new venture becomes established quickly or other family members become employed to make up the difference, the family cash flow drops and unless prepared for this, financial problems can occur.

Of course, with the financial risk comes the financial benefit, which is one of the more common reasons for starting a business. There are very few methods whereby an individual can leverage so much money as by creating and selling an idea to banks and venture capitalists. (Newton, 1980) It can be financially rewarding to create a new entity, build up a significant clientele and company name, then pay off all debts and sell the business to either another corporation or to the public.

Accounting

In the early stages of a business venture it may be possible to get by with minimal accounting, but as the business grows proper financial accounting becomes essential. Not only is it important that the accounting be done correctly, but it should be done by a well-known and reputable accounting firm. This is important because of the credibility it gives when approaching equity investors or when contemplating a public offering.

(Marcuso, 1978) With a lawyer, banker and accountant all chosen they should be introduced, so they can work together from the start. (Baty, 1974)

Finding Investors

To sell a particular business venture to an investor it is essential that the marketing strategy, estimates of financial requirements and projection of growth in sales are all determined. (Putt, 1974) In order to provide this information it is important to think through the major details of how the business will operate and prepare a comprehensive plan for the company's development. One of the better tests of the feasibility of a business is to convince someone to invest in the business concept. During the early operations usually the business founders will be the sole investors, but as the business expands, additional capital may be required. When choosing a potential investor it is important to be selective and to enlist someone who will provide enough funds, provide the necessary management guidance, and stay with the business during the hard times.

(Newton, 1980)

Concluding Remarks

Success in a venture does not come easy; it takes skill, hard work, timing, persistence, dedication, and daring, also luck. (Putt, 1974) As this section illustrates, there are many factors to be taken into consideration before making the final break. Because of the amount of hard work involved in just the preparation, many people turn back in the process. This, of course, creates a natural selection process which, in turn, increases the odds for those who are able to weather the preparation period. Of course, there are those who find this part of small business ownership the most exciting and challenging. They are a type of new pathfinder, filled with dreams and aspirations that have the power to carry them over the rough spots. It seems, as the following case studies will bear out, that no matter what the particular personality of the entrepreneur, the amount of preparation is proportionate to the success in the first few years of business.

1.2 Construction Venture

There are many characteristics of a new construction business venture which differentiates it from a normal business start-up:

- 1) The required inventory for a construction firm is much less than that of a manufacturing venture. Each construction

project is different, so a general contractor can order and ship all the materials to the site after a contract has been signed.

- 2) Manufacturing ventures require large start-up costs because of the equipment that must be installed and the tooling that has to be done. A construction business can be run out of a small office or even a home and all equipment and crews can be rented and hired on short notice with respect to demand. Because of this practice, start-up costs for a construction business are very small.
- 3) The construction industry is both more weather and seasonally sensitive than most other industries. This requires precise timing and some luck in a construction business start-up which may be unstable in nature.
- 4) Construction work is non-repetitive, not allowing for the standardization and efficiencies that can be attained in a manufacturing venture. This requires close supervision of each venture to ensure that the most cost effective practices are used and that the desired quality standards are met. Knowledgeable management is a must.

Because of these differences the starting of a construction business and the management of its operation, particularly in the beginning, can be very different. The ease of entry of the construction industry due to such low start-up requirements coupled with the sensitivity of the industry to weather and economic conditions explains why construction companies have accounted for such a disproportionate number of business failures. (Clough, 1975)

CHAPTER 2: CASE STUDIES

Introduction

This thesis recognizes the differences between the construction industry and other businesses and plans to attain an understanding of the effect of these differences on the business initiation by detailed analysis of actual construction ventures. Names of contractors who have started businesses within the last five years were requested from Michael Erlich of the Associate General Contractors, Massachusetts, Incorporated (Appendix One). Names of seven different contractors were received and letters were sent to them requesting an interview: A copy of this letter is included in Appendix Two.

The interview first looked at the background of the contractor, specifically the employment of the parents, childhood experiences and educational development. This led to a discussion of the work experiences of the contractor prior to the start of the construction business. The personal motivations, the entry barriers faced, and how the contractor accomplished the transition were next discussed. These points were important to include because it was found that each person, dependent on their background and work experience, exhibited different motivations and different experiences during the transitional period. With the contractor now established, it was next important to discuss what the contractor perceived to be the risks and benefits of small, construction, business ownership. The future

of the small construction industry was covered in the last part of the interview. This included the contractor's views on the possibility of the starting of a similar business today, or in the future, and suggestions as to the best way of accomplishing it. A copy of the interview is included in Appendix Three.

2.1.1 Moscone Case Study

The Moscone Construction Corporation was founded by Donald Moscone in 1977. Located in Quincy, Massachusetts with its operations extending throughout the metropolitan Boston area and the suburbs, the firm does general construction, renovations and maintenance, engineering, development and design-build work. When the business started it had a bonding capacity of one million dollars. Today, only three and one half years later, the bonding capacity of the firm has grown to ten million dollars due to the strong, responsible leadership of Mr. Moscone.

Donald was introduced early in his life to the construction field and to the small family business. His father came from Italy at the age of sixteen and set up his own architectural woodworking business, which specialized in doing very delicate and detailed tasks such as church altars and fine home interiors. With the onset of World War I and then World War II, his father interrupted his business to work at a shipyard. During World War I he did woodworking and during World War II he did drafting. Between the wars he went back to his own business, but after the Second World War he felt he was too old to continue on his own so he began working for a construction firm. When Donald was younger he worked with his father, helping him on some jobs and learning to use the tools in the workshop

they had in the basement. Donald's father strongly encouraged both Donald and his brother to pursue a construction oriented business. His brother declined and became an accountant, but influenced by his father's desires, Donald did eventually find his way into construction.

His father's influence, however, was not immediate. Donald first entered the Air Force for four years participating in the Korean conflict. Upon his return he got married and began work for George B. Macomber Co. He worked as an engineer's helper, a job which Donald looks back on as being quite valuable. Through this job he was exposed to quite a number of different construction positions. He worked as a rod man, laborer and as a layout man. As a layout man he began to really understand the different facets of construction, since layout work is a prerequisite to the construction of any project.

At Macomber he began to progress fairly rapidly in the responsibility he was receiving, so he felt he needed to get the education to back up his work. He entered Northeastern University nights and continued the program for nine years. At this time he had two children and the only option available was to attend school at night. Upon completion he received degrees in engineering and business.

He worked for Macomber for about five and one half years before he left to work for the George A. Fuller Company. Donald felt that his experience at the Fuller Company was

the most valuable of his construction education. At the time he entered Fuller, 1959, they were one of the largest firms in the world, responsible for quite a number of large scale and complicated projects. They controlled their operations by treating each project as a separate profit center.

Donald entered the firm as an engineer, but within one and a half years he was the superintendent on a project to build a ten million dollar, six building complex at Brandeis University. The project went well, making a good profit and Donald was next put in charge of the construction of the American Pavilion at the Montreal Olympics. It was a complicated geodesic dome designed by Buckminster Fuller. Donald was assigned the responsibilities of both the project manager and superintendent for this job. After this he became responsible for the construction of the twelve story Howard Johnson building over the Massachusetts Turnpike. At the Fuller Company, Donald got a wealth of experience in both construction processes and in business knowledge.

In 1969 the J.F. White Company became interested in starting a construction division within their operations. They approached Donald asking if he would be interested in taking the responsibility for the development of this division. Although this meant leaving Fuller, Donald looked at this as an excellent opportunity to start and operate his own construction company with minimum risk to him since it would be entirely financed by another concern. He worked there for seven years as executive vice-president before leaving in 1977 to start his own business.

Donald's primary motivation for finally leaving White and starting out on his own was a general dissatisfaction with the atmosphere he found in the upper levels of management in a large firm. He found that he was constantly having to "put out fires" caused by the mistakes of other people. On many occasions people in the other positions of top management would make decisions without notifying him with the results of their actions seriously affecting him. He also became dissatisfied with the nepotism that occurred at J.F. White. As Donald put it, "Large, closely held firms begin to see brilliance as characterized by a gene."

A second motivation for Donald was that he had always wanted to have his own business and at this time he had the capital and he was ready for a change. In many ways it was a combination of his father's influence and what he called a big ego. He saw a lot of the innovations that had occurred at White as products of his efforts. He felt he had the experience and the knowledge, all he had to do was to make the move.

He started his business in 1977, locating his operations in Quincy, Massachusetts. At the start he budgeted \$45,000 per year as enough capital to cover all business costs, assuming that he received no work. He allowed \$90,000 conservatively estimating that he would receive no work for two years.

Important to the start of the business was the help of a good lawyer, tax accountant, and bonding agent which he hired immediately. These professionals assisted him in the set up of his business organization, tax structure, and in getting a

reasonable bonding capacity. He started with a bonding capacity of one million dollars.

Donald was prepared to live a different lifestyle in the beginning years of the business. He budgeted a family income of only \$12,000 a year through the first two years. The greatest risk that he saw in the new venture was the first project would be a loser, and he would lose the \$90,000 that he had budgeted for the two years. Donald was confident that he would always be able to get a job similar to the one he had left.

Donald, however, has never thought of not making it. One reason for his confidence is that he has many of the same people working for him that have worked for him at both Fuller and White. Some of the people have been with him for over nineteen years.

In retrospect, Donald felt that the advantages of your own firm far outweigh the possible drawbacks. He mentioned the increased control over methods of operation as being important to him as well as the sense of identity each member of this small enterprise obtains from their work. As a result of this, workers are more cooperative and caring, not feeling threatened by a lack of control. Donald also felt that his family's involvement and contribution was significant, although he was careful to point out that this was not nepotism. He even mentioned that he fired one of his sons who was taking advantage of the situation. The benefit he sees is that the involvement

of the family builds up an equity in a business which they all ultimately own. One drawback that many people have pointed out is that ownership of a small business implies longer hours but Donald commented that he works no longer than he did when he worked for a larger firm.

Donald then discussed some of the qualities he sees as important for a person to start a business. These qualities he feels can either be contained entirely within the individual or the person starting the business can compensate by hiring someone knowledgeable in that field. The first quality he discussed (not in order of importance) was that the individual should understand engineering and construction. This includes an understanding of estimating and procedures for deciding which jobs are the best to bid, as well as a feel for design and the ability to determine whether the project can be constructed as it is designed. In conjunction, the individual must understand construction well enough to look over the shoulder of the foreman and decide whether the workers are maximizing production and maintaining the proper standards of quality.

Secondly, the person must be a manager. S/he must be able to deal with people and to motivate those who are working for him or her. In Donald's case he has had many of the same workers working for him for nineteen years, so their performance has satisfied him.

A third quality is an understanding of finance. A person must provide for proper accounting and should be versed enough to financially evaluate different business strategies.

The last two qualities that Donald mentioned, and certainly not of any lesser importance, is an understanding of sales and public relations. A person has got to be able to sell their product to customers and to the public. Again it should be emphasized that these qualities need not be all included in the individual if not they can be provided by hiring the right person to fill the need. Donald joked that the one advantage of having all these qualities in the entrepreneur is that the business can have a smaller conference room!

Before a person starts their own firm, Donald feels it is critical for them to understand the limits of their past accomplishments. As with any new venture the proving ground exists almost entirely in the present. Although a past track record of successes or established contacts can open a door, once inside the person has to prove that they are capable of handling an entirely new situation. When working for a company, especially a large firm, decisions are based on the knowledge that a mistake can be buffered by the company itself. Therefore, these decisions could spell the future of the entire venture, affecting the livelihood not only of the owner but of all the employees as well. This situation, therefore, creates new pressures that a person must prove they are able to handle.

Presently, Moscone Incorporated has not been at all affected by the construction slow-down that has been hurting some of the other firms. Times for them have been fairly good with their volume of work steadily increasing over their three and one half years of operation. Donald sees recessions as something not bad, but as

an economic way of removing the inefficient and poor quality contractors from the market. If times were always good then the incompetent would survive and society would continue to receive poor quality work.

2.1.2 Moscone Discussion

Donald Moscone grew up with a mixture of construction, small business and higher educational experience. He took part in his father's business, learning about the management of a small business and developing an understanding and appreciation of the trades. Fairly shortly after his work in larger construction firms he realized his need for a formal education and received degrees in engineering and business. This broad mixture of construction, business, and education experience prepared him well for the start of his own business. His work for the George A. Fuller Company was especially good preparation. At Fuller he had the opportunity to manage large, intricate projects, each being handled as separate profit centers. Both at Fuller and later at J.F. White Company he had the opportunity to operate a separate business within the framework of another larger business. This allowed Donald to practice the management of a small business without the risks inherent in individual ownership, but also without the benefits.

This broad background of experience, coupled with a growing dissatisfaction for working for a large firm directed him toward the start of his own business. Donald had the need to view some

path to the top of whatever business he was involved in so that when that path became blocked by unpredictable behavior, such as the nepotism that he viewed at White, he became dissatisfied with his situation. Donald's ego as well as his experiences with his father's business were also influences since he expressed a need for the full control of his employment situation and did have the knowledge of what life with a small business was like.

Donald approached the start of his business conservatively, but professionally. He set aside \$90,000 to allow the business to survive for two years if even no work was received. In addition, he budgeted \$24,000 for two years of living expenses for his family, and at the same time he contacted a good lawyer, tax accountant and bonding agent to assist him in the initial organization. Donald's approach to his new business could be considered conservative and to many it would seem a luxury, but because he was able to set aside the capital he could concentrate on making decisions with little worry for the security of his family. As a result, he was able to approach his new venture in a serious professional manner and was able to convince financial institutions and customers that he was here to stay.

To date Donald has perceived many advantages and relatively few drawbacks in the ownership of his business. He has enjoyed the smaller and more cooperative size of his organization. He has found it rewarding to have his family involved in a business that they will all ultimately own. He enjoys the feeling of having full control and especially enjoys the fact that working longer and harder hours will directly benefit him. The only risk that

he perceived was the financial risk of losing the \$90,000 that he set aside by getting no work, or having an especially bad first job. Donald does, however, also seem to be vulnerable to a psychological risk. If his business fails Donald may lose some confidence in himself, and even if he does get a good job elsewhere the memory of this failure would probably affect any of his future actions.

Donald believed that for a business to be successful certain characteristics had to be present. These, he feels, could be all part of one person's make-up or could be pieced together with the hiring of people with specific strengths. The important point, to him, almost a success formula, was that all the characteristics were present in whatever proportions necessary for the particular situation. However, it does seem that there would be a significant difference in the final result if five people comprised the whole kit of parts than if one person did. For instance, by having a variety of people with different strengths, decisions would come about slower but would in the final analysis be richer as a result of the collaborative effort such a situation would demand.

Donald also believed that the presence of a new situation, i.e. ownership of a small construction firm, brought with it a whole new set of circumstances and that prior successes did not necessarily prepare a person to meet these. Awareness of this is probably the key to why Donald approached his business as cautiously as he did and perhaps will be the key to his ultimate success.

2.2.1 Gutierrez Case Study

The Gutierrez Company provides a full range of Real Estate Development services including Site Selection, Master Planning, Project Management, Design Coordination, Construction Supervision, Financing, Property Management, and Real Estate Brokerage.

Arthur J. Gutierrez is company president, G. Bailey construction manager and Frederick A. Smith project manager. Mr. Gutierrez attained his experience by working first for a general contractor, and then for a Real Estate developer. His combination of experiences in both general construction and real estate managing and financing provided a strong foundation for a new business venture.

Mr. Gutierrez was born and raised in Havana, Cuba. In 1957 he came to the United States to attend MIT. His father was a lawyer and had some involvement in real estate, but was of little influence in Arthur's interest in construction and real estate. His aunt, one of the few women structural engineers in Cuba, was of greatest influence to Arthur. He worked for her during the summers doing field and survey work.

He entered MIT in 1957 to study what was then a general civil engineering program. He completed the program seven years later having received a B.S. in civil engineering and a Master's Degree in materials. He decided that if he could get a fellowship he would continue on for his Doctorate, but he was unable to get one so he left MIT to begin work.

His first job was with George A. Fuller Company, a general contractor in Boston. He worked there for two years doing mostly estimating. He next worked for Aberthaw Construction Company, Incorporated, also in Boston, for seven and one half years. He did estimating work for about five months, then began working as a project manager. He did that type of work for quite a few years, getting involved in some large projects of substantial responsibility. Of major importance to Arthur's career was a contract he negotiated with Honeywell. He got involved in the design and was able to cut the construction cost considerably persuading Honeywell to construct the building and giving Aberthaw the contract. This led to five additional contracts with Honeywell, all of which were negotiated by Arthur. Arthur advanced within Aberthaw to become responsible for all the company's negotiated work, handling projects up to twenty-five million dollars, and eventually becoming vice-president and head of their Washington, D.C. office. When Arthur began work at Aberthaw they handled fifteen million dollars worth of contracts. When he left in 1971, they were handling one hundred and twenty million dollars worth of work. Arthur attributed his success to his complete understanding of the design-build process and his ability to negotiate contracts. His understanding of both design and construction allowed him to consult with an owner and to give them a building that fit their needs and budget.

Arthur left Aberthaw to become President of Spaulding and Slye Management Company, Incorporated, responsible for the management of all Spaulding and Slye Corporation properties. He next became President of the Spaulding and Slye Construction Company

where he was responsible for the operations of the company and the construction of Spaulding and Slye properties. The last position he held at Spaulding and Slye was Executive Vice-President of Operations. He directed all company operations including all regional offices. Arthur's work at Spaulding and Slye reinforced his experience in construction and project management as well as introducing him to the Real Estate Financing and property management, two parts of a real estate cycle that many construction oriented people never experience. His last position as head of company operations gave him the opportunity to oversee a Real Estate Division, Construction Division, and Property Management Division. To make things work he had to understand the operations of each and had to balance each division's goals.

In 1977, Arthur left Spaulding and Slye, with his partner, John Cataldo, to start The Gutierrez Company. Arthur was motivated to start his own business for several different reasons: One was that he felt he was an independent person and had always wanted to control his own business. A second reason was that he had been offered specific salary increases and when he didn't receive them as stipulated he felt he could do financially as well on his own. Thirdly, he felt that much of the success of both Aberthaw and Spaulding and Slye were due to his own hard work and he desired to receive some of these benefits for himself rather than for the owners.

Arthur's transition from Spaulding and Slye to his own business went fairly smoothly. He started his business as a partnership

with Mr. John Cataldo who had over twenty-nine years of experience as the principal partner. Arthur left Spaulding and Slye on good terms with six months of continued work and salary guaranteed. He felt obligated to both Spaulding and Slye, the clients and the projects he had in progress, so he worked out this consultant relationship. This working arrangement eased the transition by giving him the time to establish his own business with a stream of income guaranteed. Because of the nature of the construction industry, The Gutierrez Construction Company was founded with only a small equity commitment of \$20,000. Arthur felt that the time and energy that he and John put into the business were the critical inputs because they had proven themselves before. Construction work is one facet of the business and real estate development and management the other. The profits that are made are reinvested into additional work by teaming-up with a client on a development project. A typical investment calls for The Gutierrez Company to do the construction, the management and to maintain a percentage of the ownership. Gutierrez is able to get by with only a small equity commitment because unlike other developers it ususally only owns a small part of the investment. It offers to its clients the expertise to supervise, design, build and manage a real estate project. Because Gutierrez does not provide a large equity commitment it still has to provide a security bond. This has been a problem in the past, but since the company has become experienced and proven itself, its bonding capacity has increased.

Gutierrez has had a few bid jobs but most work has been negotiated. Because of both Arthur's and John's experience they have

been able to attract customers from among their past contacts. They have had design-build work and they also generated some of their own work through their real estate development ventures. The business has maintained steady growth from a gross volume of about 1.3 million the first year to about 4.2 million the second to about 11.5 million in the third year.

Since Arthur has started his own business he has found that he works longer hours, but that he enjoys the work more since he is working for himself. His wife has totally supported the move from Spaulding and Slye, only questioning why it took him so long to make the change. Even though he works longer hours Arthur finds that he is still home more than in the past since the larger firms required extensive traveling. Arthur is heavily involved in local organizations (such as the AGC) both for community support and for business reasons such as market visibility.

Arthur finds that the most important quality a person should have in starting a business is the ability to effectively deal with people, stressing that in his business he wants his people to work with him not for him. Arthur also mentioned the importance of working experience and good contacts. School can teach a person how to handle theoretical problems, but only by working can a person learn how to handle different business situations. By working, people learn how to deal with others, and begin to expect unusual problems that may have never been seen before. Through experience a person learns how to walk into a bank and negotiate a deal. Both John's and Arthur's contacts

were used in selecting the right people for their staff and in negotiating work. When negotiating a job The Gutierrez Company is marketed solely on its record of past work and the references of people that have worked with the principals.

Arthur feels that it is best for a person coming out of school to first work for a larger firm to get both the field experience and estimating/engineering experience. A person also learns about timeliness, paying attention to detail, self-discipline, and how to deal with a bureaucracy. It is very important that a person does not work there too long otherwise it is easy to become dependent on the salary and benefits. A way to combat this is to enter the job with set needs and when they are filled, to move on. Arthur also suggests that a person should work for a small firm that is growing. By doing this a person is given tremendous responsibility and is allowed to get involved with all facets of a construction operation. Here, a person learns how to deal with people, how to improvise, and all about the growth of construction business. In a small operation, Arthur feels that a person can learn more about a construction business in a short time than one will ever learn from a large business.

These two steps give a future entrepreneur a good foundation from which to establish a new business venture. Working for both a small firm and a large firm a person learns the different facets of the construction industry and makes good future contacts. With the experience behind him, contacts in hand, and the ability to deal with people mastered, a person is then ready to start a

construction business.

2.2.2 Gutierrez Discussion

Arthur Gutierrez grew up under a strong intellectual and academic influence. His father was a lawyer and his aunt, with whom he worked summers, was a structural engineer. Later he attended MIT, and received both an undergraduate and a graduate degree in Civil Engineering. At MIT, he was motivated to pursue academic and intellectual excellence. From a construction viewpoint, Arthur was always involved in the design and management of the construction activities and never in the actual hands-on work. It is important to note Arthur's background because it strongly influences his opinions.

When Arthur left Spaulding and Slye he was financially secure and had already managed a Real Estate-Construction Company from within the Spaulding and Slye corporate framework. When Arthur found himself at the top of his respective division, with no room for advancement, he still had a need for further financial and corporate motivation, so when the company refused the specific salary increases that he had expected he was ready to leave. Arthur attributed much of the success of the firms he had worked for to his own personal efforts. Arthur's association with John Cataldo and the six month consultant relationship, which would provide him with some income, combined with his self-confidence in his ability, made Arthur feel that this was a good time to make his move.

Arthur looks back on the success of his firm and when he compares it with his past work for larger organizations he feels confident that he made the right choice. He looks at himself as an independent person with a need to maintain full control over all decisions that would affect his life. By owning his own business he is able to earn his living in a just such a manner. He also sees the potential for greater financial gains and the receipt of payments commensurate with the amount of work done. Presently, he is building up equity in the business and, if he works longer hours, the business will receive these benefits. In the past, when he worked additional hours, he never received what he felt to be just compensation. Arthur never spoke of risks other than those financial and these he saw as minimal. He felt that if the business failed he would simply lose his financial investment (\$20,000) and start working again for another firm. He was confident of his marketability, not fearing that his pursuit of a personal business would jeopardize his career. A risk that he did not mention, but which does appear applicable, is the psychological risk. Arthur appeared extremely confident of his ability and had always done well in his work for other firms. If he failed in the establishment of his own firm, and even if the failure was due to conditions out of his control, he may regard the loss of his business as a personal failure or as a sign of a deficiency in his abilities.

Many of the suggestions that Arthur made for people starting a business are references to his personal strengths. Both Arthur and John Cataldo seemed to have a number of good contacts and because of this they do a majority of negotiated work. Arthur

stressed the need for a good track record, the ability to deal with people and the effective management of both a business and a project. In his way of thinking there is a clear path that one should take in preparation for the start of a business. He felt that a person should work first for a large firm, getting exposure to the bureaucratic structure and its way of dealing with projects. Then, after a comfortable amount of time, the person should move on to a small but growing firm where s/he would be exposed to all facets of projects, perhaps on an intimate basis over time. The time seemed to be a key element, finding the balance between staying long enough to build a good track record and leaving before financial and psychological dependence takes hold.

2.3.1 P.J. Stella Case Study

The P.J. Stella Construction Corporation was founded by Paul J. Stella and his wife, Adrienne, in 1971. The firm is located in Wakefield, Massachusetts with its range of operations extending from Southern New Hampshire to the entire metropolitan Boston area. The firm presently does about six million dollars worth of work, basing its success on responsible leadership and dedicated management. Mr. Anthony S. Voci is Vice-President and General Superintendent, and Mr. Lawrence P. Erikson is Construction Manager. Both graduated from Northeastern University, with Mr. Voci having had a wide range of construction experience.

Paul's father has a one person plumbing operation of which Paul and his brother have always been a part. When Paul and his brother were growing up they worked summers for their father, and Paul's brother eventually started his own plumbing business. These two individual family operations have been of great influence in directing Paul towards the start of his own business. While he was attending Northeastern University he directed his course of study toward subjects that would be of use in his operation. He took night classes for seven years and received an Associate degree in Civil Engineering and a Bachelors degree in Business.

Paul's first construction work experience was his job with Vappi and Company, a large construction firm located in Cambridge, Massachusetts. He worked there for quite a few years as a field engineer and was responsible for the construction layouts, cost control, scheduling of work and manpower allocation. He felt that this work experience taught him, first hand, how a building is constructed and gave him the opportunity to practice on some very large and complex structures.

His second work experience came with Franchi Brothers Construction Corporation which is located in Newton. He worked there for about three years as a General Manager responsible for the construction of some fairly large projects. Franchi incorporated a profit sharing plan which allowed the workers to share in the profits of the jobs in which they were involved. Paul

put these profits aside to be used in the starting of his own business, an idea which always was in the foreground of his thinking. When he accumulated \$20,000 he and his wife decided that they were ready to begin.

It is important to note that at the time Paul was accumulating experience in the construction industry his wife, Adrienne, was building up financial and accounting experience. She worked as a bookkeeper in a supply house for several years while taking classes in both finance and accounting. When they started the business they hired a construction-oriented accountant who worked with her to set up the books properly, but now she has taken responsibility for their proper maintenance.

Paul was motivated to leave Franchi and to start on his own for several different reasons. He needed to have control over both his financial/promotional future and the methods of operations the firm he was involved with employed. He had always worked for a union ship. He personally favored open shop work, and by owning his own firm he was able to implement this. Financially, he felt that he would always do well working for another firm but he never felt that he could make it to the top. Also, Paul's sense of personal self-confidence is based on his individual achievements. By working for other employers he would work long hours, but his contribution would always be measured and rewarded as part of the total firm's effort. This was not good enough because he needed the ability and the challenge

to work for himself and to see just how well he could do on his own.

At the start of the business Paul teamed up with a good bonding agent, banker, lawyer, and construction accountant. He sees the relationships a contractor has with the bonding agent and the banker as a key in the success of a firm. He initially received a \$25,000 line of credit from the bank and a small bonding capacity, but by managing his operations tightly, with the motivation to build up a good track record and reputation, he has increased both his line of credit and his bonding capacity. His present line of credit is \$500,000 and the bonding company puts very few limitations on the types of projects he can handle. He has built up his reputation by successfully completing the work he has begun, paying his bills on time and maintaining constant growth by putting his profits back into his business.

Paul and Adrienne made every effort to keep the fixed costs down when starting the business. They ran the operations out of their home and rented almost all their equipment. Paul estimated work at nights and supervised the projects during the days. Adrienne handled all the financial aspects of the business. As the business expanded they moved the operations first to a rented office and then to a building which they purchased. The greatest fear they had was that they would not have enough work to cover their fixed costs. Because they started their business

in 1971 they had to endure some tough times during 1973 and 1974 when work was scarce. During this time Paul kept estimating job after job just hoping to get enough work to stay in business. Because of this experience, which neither he nor Adrienne prepared for, Paul suggests that a person beginning a business should do their best to anticipate the economy and select a time to break away when the industry is thriving.

Besides the financial motivation and the motivation of individual control, Paul was also motivated to create a business in which his family could be involved. Adrienne contributed to the business from the start, and Paul is eventually hoping for his son, who is now in his first year of college, to take over the business. His son has been working as a laborer during the summers, and Paul feels that he does appear to want to become involved in the business. Paul sees the family as building up its own equity by everyone contributing to a business which they all control.

As part of his involvement in a locally oriented construction organization, Paul is actively involved in both national and state construction associations whose interest affect building legislation in the local communities. He is a member of the Massachusetts Chapter of the Associated Builders and Contractors, of which he is President, Associated General Contractors, American Concrete Institute, American Society for Concrete Construction, Massachusetts Building

Congress, and Massachusetts Construction Industry Board. He finds these organizations necessary both for what his involvement can do for them and what they can do for his construction business.

Paul believes that self-confidence and experience (or lack of it) are the greatest determinants of success at the start of a construction business. Self-confidence is essential for people to effectively interact with subcontractors, designers and the owner. A contractor has to be able to stand behind her/his own decisions before s/he can expect others to unquestionably obey. Field experience is necessary for a contractor to learn about how to read drawings, schedule suppliers, how a building goes together, and it gives the contractor the foundation on which self-confidence is developed. A successful contractor has got to be able to push and to motivate people; field experience is a good indicator of whether one has that quality.

Paul sees today as a tough time for one to start a new construction business. One reason is that there is just not that much work around and he is beginning to see larger contractors bidding on the small work. He is combating this increased competition by instituting a marketing campaign to try and sell his business to the large businesses such as Honeywell, Digital, etc. who do a lot of building, and to also get on the bid list of key architects in the area. By doing this he hopes to increase the amount of his negotiated work. Another reason why he feels times are getting tough

is that he sees the bonding companies creating much tighter restrictions on the bonds they let out. The sureties are asking for more detailed records of past work and greater proof of one's ability to handle the job. It is tough for a new contractor to meet these requirements.

When Paul reflected on his experiences over the past nine years, he was able to identify many advantages of his own small business over his previous employments. He feels he has greater control over his life. He senses the building of personal pride and enjoys the building up of family security and equity in the business. He enjoys the freedom to be his own boss, able to miss a day of work or perhaps to go to a convention. He feels like he no longer has to specialize doing only estimating, etc.; in his own business he has many duties, each day is different. He has always worked longer hours and he now feels that he benefits more since they are all for himself. The only major risk that he was concerned about when initiating the business was the loss of his \$20,000 investment. Although he did feel that he could again get employed and that the failure of the business would not be so traumatic as to break his personal confidence.

2.3.2 P.J. Stella Discussion

For Paul, exposure to small business ventures and to construction related trades came at an early age. His father, and later

his brother, owned small plumbing operations with which Paul worked at various stages of his youth. Later he picked up a substantial amount of field experience at Vappi and at Franchi. Paul broadened his business base by taking classes at Northeastern University for seven years. This educational background introduced him to issues and answers that he would never have been exposed to in the field and better prepared him for the initiation of his own business. Also, it allowed him to form valuable business associations with Mr. Voci and Mr. Erikson who are now two of the key people in his firm.

From the start of his personal involvement with construction, Paul devoted the majority of his day to some aspect of it. Field work ususally filled his days, and during the evenings, if he was not doing estimating or attending classes, then he would go to conferences or other construction related activities. Paul knew that he would always be involved in construction to this extent and felt that to be fair to himself he should own a construction business so he could directly receive the benefits of this amount of directed energy. Another motivation for Paul was his need to run the operations in his own way. Paul displays strong confiedence in his construction knowledge and felt that he needed the opportunity to control his own construction operation in his own way.

The involvement of Adrienne in the start of the business was a real plus in giving Paul the motivation to make the move and in easing the transition. The involvement of Adrienne assured

Paul that his family was behind the move, increasing his self confidence and removing any family insecurities which can greatly effect a person's performance. Adrienne had worked full time from the conception of the business, actually making this venture not a one person, but a two person family business.

The closeness of the work between Paul and Adrienne is one of the benefits that Paul sees in the start of the business. He enjoys the fact that the two can work the business together and that the rest of the family can be involved. Paul appreciates being his own boss, a contractor, and having a business that is building up equity so that it can be handed down to his family. He is immensely satisfied with his efforts in starting the business and to him it was worth all the risks that he had to take.

The greatest risk to Paul was the financial. He was greatly concerned that they would not get enough business to handle their fixed costs. Both Paul and Adrienne left their jobs to work full time on the start of this business and it was essential that they get enough work to handle both the business costs and their own living expenses. They had saved enough money to subsist for a while but unfortunately they started during a recessionary economy and work was hard to get. Paul had a fairly good record from his past work but with this new business he had no experience built up, making it difficult to compete with the many contractors who were struggling for jobs.

This experience explains Paul's concern for an entrepreneur to accurately evaluate the economy and select a time to enter when the economy is on an upswing. An established firm can usually weather the tough times, but many times a newly established firm cannot. A second point that Paul stressed was the need for a contractor to truly understand the construction of a building. This concern has undoubtedly developed from his strong trade background, but it is still of vital importance in the success of a construction business. If the owner does not have this skill it is essential that someone be hired to fill this role. The skill is necessary in choosing the right jobs to bid, realizing which jobs will be problems and which jobs will make money. Paul does not see today as a good time to enter the market because of the state of economy which has increased competition on available jobs and tightened the building requirements, but he certainly views the career as a rewarding alternative for the future.

2.4.1 C-Q Construction Company Case Study

Mr. Cress, founder of C-Q Construction Company, has been involved in construction most of his life. Both his grandfather and his father worked in the construction industry, his father as a general manager of a construction company/ At eighteen, he began to work summers for his father's company as a laborer and in later years, as he pursued a college education, he began to do estimating. He graduated from Tufts in 1970 with an economics degree. After graduation, he enlisted in

the Army National Guard, motivated by the desire to avoid the draft. In the National Guard he worked as a combat engineer becoming involved in many different construction projects, but the major emphasis was on road building. From 1971 to 1976 he worked for Franchi Company as an estimator. He left in 1976 when he and his present partner, Mr. Lorenzo Quinoes, decided to start their own business. Mr. Cress had always wanted to be involved in the construction industry. He enjoyed being part of a building team when he worked for Franchi as an estimator, but now, with his ownership of an entire construction firm, the satisfaction is much more substantial. Although he always hoped that someday he would have his own business, he never imagined that it would be established so early in his career. (He was twenty-eight when he started the business) When he and Mr. Quinoes started the business in 1976, William worked full-time for C-Q and Lorenzo worked for another firm. The decision for Lorenzo to work outside the firm was based on his greater marketability since he had worked in the field for more years than had William. Also William and his wife did not have any children and his wife worked, so they were not overly affected by the initial low income from the new business. William and Lorenzo decided that when the business picked up so that it could support two incomes, Lorenzo would quit his job and come on board.

Although William feels that he works more hours with his own business and that he makes less of a salary, he really enjoys the work. He gets a lot more satisfaction out of being his

own contractor than he ever did out of being just a project manager. He enjoys all the day to day tasks that he has to do: the correspondences, the phone calls, making decisions about what new technology to incorporate into the business, who to hire, etc. Although William spoke enthusiastically about all phases of his work, his ultimate satisfaction comes from the completion of a project. This final product bears witness to his ability and gives him a sense of accomplishment and success.

Both he and Lorenzo were very meticulous in the starting of C-Q Construction. They planned their break from Franchi smoothly, so much so, that today their office is in a building they rent from Franchi. They got legal assistance in forming the corporation and they have hired the services of an accountant at different times to prepare certified statements of the company's finances. They have good relations with both a banker and a bonding company. William's wife was very supportive of the new venture. Since her father had started his own business she was used to the long hours required to successfully manage a new business.

For the most part, the business has been fairly successful, but William did talk of some hard times in the past. In the first year, early 1977, there was little work available for a new contractor with no experience. At this time William began to have his doubts about their new venture and started looking for a new job. The firm he inquired to gave him a poor offer while at the same time C-Q successfully bid on

profitable job so these two incidents convinced them to stay in business. In addition to the past bad times, William spoke of the ongoing drawbacks such as long hours, continual cold suppers, and the occasional phone call in the middle of the night because of problems on the job site. So far the pay and the holidays have both been minimal, but William optimistically feels that they will improve in the future.

William also discussed what he felt were the risks and the rewards of being a contractor. The biggest, most obvious risk to him was the financial. He talked of how he and his partner were signing contracts for work well in excess of their personal net worth. Small contractors work on a very small profit margin and if they make a mistake they can quickly go bankrupt. He also spoke of the psychological risk and how a business and an owner become one in the same in a very short period of time. If the business fails it is easy for the owner to feel that s/he failed. This can lead to breaking in a person's self-confidence. He saw this happen in 1973-1974 when, due to economic circumstances, many business went bankrupt.

The rewards to William were the personal freedom that comes with having your own business and in being a contractor. He finds the contracting profession very ethical and is proud to be a part of it. He spoke of times when he would quote bids over the phone which would always be held to by the other contractor, all of which led to a sense of comradery.

C-Q Construction does a lot of work in the public sector, including renovations and roof jobs. They vary from eight full-time employees in the off-peak seasons to eighteen full-time persons in the summer. They do all their own carpentry work, finish and rough, and do concrete and masonry about fifty percent of the time. They do seem to be quite open to change in their organization, both partners having attended a lot of conferences and taken a few evening courses. They are open to applying new construction techniques and are now in the process of negotiating for a word processor.

The last topic William discussed was his feelings about the future of the small construction industry and what type of advice he would pass on to a person just starting out. At the present time he sees the immediate construction future as rather gloomy, with the prime interest rate hitting 19.5%. One of his greatest concerns is a cutback in government spending which he sensed as soon-to-be implemented policy of the government to cut inflation. He does a lot of work with cities and towns and he feels if they are going to be cutting back in spending, construction will be the first thing to go. Considering these facts he saw a poor future. He does however hope that renovation work will pick up to compensate for reduced new work and that the projected recession will be short and not too severe.

2.4.2 C-Q Construction Company Discussion

William became involved in the construction industry at a fairly early age, working summers for his father's construction company. After high school, William picked up an economics degree and following graduation, some construction experience in the Army National Guard. William later worked for Franchi as an estimator. Although he was the youngest of the people interviewed, William still has a fairly broad background of construction and educational experience.

William always envisioned the ownership of his own business as the eventual path his career would take. In the five years he worked for Franchi he continually had his eye out for the opportunity. Thus, when the opportunity arose in the form of a partner, Mr. Lorenzo Quinoes, William was ready. At the time he left Franchi, William was not at all dissatisfied with any particular part of his work. What motivated William to leave was his on-going desire to be the person responsible for all phases of the construction process. This, of course, is not possible when employed by a large firm, so the only option available to William was the initiation of his own business.

The transition from their work at Franchi to the set up of the business went fairly smoothly. The use of the partnership arrangement, where one of them worked full-time for the business until there was enough income to support both, turned out to be beneficial for William and Lorenzo. However,

such an arrangement could cause complications, especially if there had not been a prior relationship established between the two. One possible problem would be the confusion of the partner working outside the firm as to the amount of time and energy s/he should be submitting to the new venture. Once both were set up in the business, however, the contributions became very specifically defined. They divided the responsibility so that their individual talents were realized to the fullest. In addition, they share as best they can their perceptions and experiences so that each is in touch with the other's actions. This communication helps them relate to each other's problems, thereby directing the path their joint and individual decisions take.

When starting out, William's biggest fear was the loss of the money that he and Lorenzo invested in the firm. Although he was unwilling to state the exact amount, the sum of money was substantial enough in his mind to cause concern. There was also the psychological fear of failure that William spoke about. He feels that if the business folds, he will carry the memory of it with him, affecting his self-confidence in whatever future venture he might attempt. Aside from the business related drawbacks, William also voiced concern about the amount of time consumed by the operation. This, of course, affected the time he was able to spend with his wife and also left little or no time for vacations.

The only real benefit William perceived was the satisfaction of being a contractor. This seemed to be distinct from

being an owner of a small business, although this was definitely there also. William was very proud of the profession, believing it to be ethically sound and felt a great deal of pleasure in being part of it. In addition, his position as owner with its many responsibilities has given him a real sense of participation in the profession.

2.5.1 Rostanzo and Lavoie Case Study

Rostanzo and Lavoie Construction Company, Incorporated has been in existence for three years. It has a full-time staff of seven people and is run out of the basement of a multi-family home that Nicolas Rostanzo owns. The firm concentrates on building construction and does both new and renovation work.

Combined, Nicolas Rostanzo and his partner, Ronald Lavoie, have over fifty years of construction experience. Mr. Rostanzo has had experience in estimating, construction negotiations, and project management, with an Associates Degree from Wentworth Institute of Technology. Mr. Lavoie has had considerable experience in the trades and as on-site superintendent. Both men come from backgrounds with a strong influence in the construction trades as each of their fathers worked in the construction field. Nicolas spoke about how he used to work with his father, who was then a construction superintendent, learning the carpentry trade. Both men feel perfectly comfortable going back and working

their trades again if their firm ever fails.

The motivation for the two men to leave Bennet Constructors, where they met and were both employed, came for mostly financial reasons. Each felt that considering their experience and technical competency that they should be making a higher salary. A lesser reason was also their need to maintain greater control over the projects that they were handling. Each wanted the ability to choose the specific jobs that they were to be involved in and to accomplish them in their own way.

The transition for them from Bennet to their new business went fairly smoothly. They purposely waited until they were older and their families had become fairly stable. Financially, each was secure and their children were grown up and did not demand the time that younger children do. Each family was willing to allow the men to work long hours and to sacrifice one or more summer vacations. The two men also complemented each other, and given their combined experience they had a strong knowledge of the local suppliers and customers. They began their business nights while they were working for Bennet. They were very careful to keep their personal work and their work for Bennet separate and not jeopardize their business relationship. Since they have always operated their business from the basement of a home that Nicolas owns, they have kept their overhead cost fairly low which also eased the financial transition. In summary, the partnership relationship, the age and experience of the partners, and

the gradual start contributed to a successful beginning.

To Nicolas, the major benefit that he sees in the ownership of his own business is the increased job satisfaction. This is a factor of the increased control that he has and the greater variation in his day to day responsibilities. Nicolas spoke proudly of his and Ronald's ability to choose which direction their company will head and in what manner each job will be handled. Nicolas also spoke of the many types of responsibilities that he had and how to him this made his work day more interesting. He mentioned the many responsibilities that he had and how they expanded beyond construction to a much broader and all-encompassing level.

Nicolas felt that there were three areas that a person entering the construction field should be well-versed in. These are accounting, estimating, and management. When Nicolas discussed accounting he talked about the many problems that he has had in this area. He sees bookkeeping, payroll, and collection of owed accounts as problem areas in his business and point that he needs to concentrate on to improve. To keep these areas fine tuned he needs to pay an accountant to come in and prepare his financial records. This was done last year and when he was audited all was found in order. When he was involved with a larger firm, as Bennet, Nicolas was not aware of the many business responsibilities that small firm ownership entails, and now, because of this experience, he recommends preparation in this area.

Estimating was the second area that he feels must be mastered for one to succeed as a contractor. Nicolas spoke of estimating in a very broad sense, associating estimating knowledge with a knowledge of the construction profession. To him estimating included a knowledge of materials, construction details, quantity take offs, preparation of a bid, and the other factors of construction which allow one to receive and complete a job. Nicolas and Ronald, combined were very confident of their abilities in this area owing to their family backgrounds and work experience.

The third area that Nicolas discussed was the proper management experience. Their firm only has seven permanent employees, but depending on their work load, their staff can be much larger. Nicolas felt that it was very important that the owner instill in his/her people the motivation and the responsibility to insure the proper completion of each project. As the firm grows and the projects become larger this becomes increasingly difficult. To Nicolas the key to his success is in the hiring. He feels that the way to achieve the proper standards in his firm's work is to hire the right people. He goes to great lengths to screen his prospective employees and if they do not perform up to his standards he lets them go. To him a small business is like a family and if the wrong people are included the tightness and harmony of the business may be ruined.

Nicolas summed up his feelings by saying that if a person is competent in these three areas that they should stand a good chance of succeeding today. He did add that the inclusion of

a creative mind would also be helpful. He called this type of person a "thinker", a person who was resourceful and able to make a quick and correct decision in a situation that was never faced before. To him this was the type of person who had a construction instinct and made their own luck.

Nicolas spoke of the immediate future of the construction industry as looking somewhat gloomy. He feels that it would be difficult for a person to successfully start a small business given today's economy. He has noticed a slowing down in new work over the last few months with only a slight increase in renovation work. He does not see the predicted recession as being either severe enough or long enough to drastically hurt established businesses. He does see it as affecting newly established businesses. To Nicolas Rostanzo and Ronald Lavoie the construction industry is a rewarding and successful business opportunity and following the end of the current construction slump, a valid career alternative.

2.5.2 Rostanzo and Lavoie Discussion

Of the six firms that were interviewed Nicolas Rostanzo and Ronald Lavoie stood out as having a combination of the most years worked in the field while having the least amount of formal education. At the time that they began their business both had over twenty-five years of actual field experience but Nicolas was the only one to receive any degree, that being

an Associates degree from Wentworth. Because of this predominantly trade background and the number of years spent under the wing of a larger firm the reasons for setting up a business at this time of their lives may seem puzzling. For Nicolas and Ronald, however, the motivation was very simple and straight forward. Both men felt that Bennet Construction was not providing adequate promotional opportunities. This led them jointly to form the idea of their own business venture where they were sure they could do better financially.

Although the reasons for leaving Bennet at the time were pointed, Nicolas talked at length about the motivators that have since become key elements in keeping the business and both men functioning. Nicolas enjoys the greater control he has over his employment, being in a position to choose the jobs he wishes to bid, the people he would like to work for and the people he would like to have work under him. He also enjoys the greater diversity in his work and the greater responsibility, both of which go hand in hand with the functioning of a small business.

Since most small business ventures require a great deal of time and money, people find when starting that the two largest considerations are the financial risk and the effects on their family and private lives. In the case of Nicolas and Ronald, the effect on their families was minimized by the particular time in their lives that they chose to start their business. In both families the children were at the point where they were fairly independent of their parents. Also, both families

were prepared well in advance of the actual implementation of the business. The result is that although Nicolas and Ronald work seventy-five hours average a week, the long hours and lost vacations have minimal effect on their relations at home. Financially, their timing was also very good. Many of their children are already on their own and their own financial debts were minimal. Another financial factor in their favor is that they run the business from the basement of a three-family house, owned by Nicolas.

With the hindsight of a man established in his business, Nicolas offered advice to those considering a small business venture. Accounting and bookkeeping held the prime position on his list, perhaps because he personally felt lacking in this area and also because he feared the possibility of embezzlement that could result from ignorance. A sound base in estimating, more accurately called general construction knowledge, was also important to him considering that the future of a business often depends on success in bidding. Another point of advice offered, and one that Nicolas obviously felt comfortable with, was the need to successfully manage both jobs and administrative tasks. Nicolas feels that the best way to ensure proper standards and quality in a company is by closely scrutinizing the hiring process. Getting the right people who maintain the same beliefs and whose personal goals are consistent with the company's goals is an excellent way to ensure a successful business.

One other quality that Nicolas felt was essential to a

successful business was an innovative mind. This was a point that has been brought up in the other interviews, talking about how all the training a person may have is useless if it cannot be applied creatively to an unusual situation. In the construction process, unique situations are constantly being faced and to be successful the contractor has got to be able to solve these problems and get the job done. On the other hand, creative genius must be combined with a adequate knowledge of the construction process and as engineering, management construction knowledge increases, the chances of being able to recall or draw upon a proven solution process increases. Education and experience allow a contractor to analyze a problem and to creatively apply a proper solution.

2.6.1 Shah Construction Company Case Study

Jitendra Shah came to the United States from India in 1969 at the age of twenty-eight. Construction has been a part of his family for three generations with his grandfather, father and brother all having owned their own construction business. He came to the United States for the adventure of trying to start a business in a new country and because he felt that the construction market was saturated in the areas where his family had been successful.

Jitendra arrived with a professional education equivalent to a Bachelors degree in Civil Engineering. He first began work with the John A. Volpe Construction Company located in

Malden, Massachuestts, working there for about five years as a field engineer. When Jitendra came to the United States his intent was to work for a firm for several years to become accustomed to the United States' construction industry. For instance, in India material costs are the major factor in construction where in the United States labor is of greater concern. He also needed to become familiar with working in another language and with a new monetary system. When he became comfortable with these and had become financially comfortable he would then make his move to start his own business. Jitendra had always intended to start his own business, the only variables being where it would be and when he would begin.

If there ever was a possibility that Jitendra would stay with a larger firm and not start his own business his work at Volpe ended that. His relations with top managment were always good and he was given a fair amount of responsibility, but he just saw little possiblity that he would ever advance above the superintendent level. Jitendra also missed the sense of control and the commradery that he had seen exerted in the businesses that his family had owned. He needed to either see the potential for advancement to a position at the top of the firm or he had to own the firm himself.

When Jitendra started his work at Volpe he still was not absolutely committed to starting his business in the United States. He decided that he would work here and acquire sufficient capital and experience then look at the potential

in both locations. Jitendra decided on locating in the United States because he was approached by two men who were interested in financially backing a new construction venture. At this time Jitendra had the motivation, but did not have the capital so he accepted the partnership arrangement.

Jitendra insisted on personally notifying the top management of his intentions and then arranged for a time of departure that was convenient for Volpe. This led to a smooth separation and presently a good relationship between Jitendra and Volpe.

Whatever smoothness may have occurred for Jitendra in his departure from Volpe certainly did not occur in his establishment of his construction business. Unfortunately Jitendra started his business in 1974 during some very difficult times for the construction industry. Customers and the bonding companies were questioning the ability of even established contractors to fulfill their contracts. Jitendra had a proven track record at Volpe but at this time he was questioned about his ability to do the work with his own firm, and in 1974 he had no personal business experience. To make matters worse the first job Shah Construction received was a difficult experience. The amount and time of the payments ended by being disputed leading to a lengthy out-of-court arbitration. Jitendra's financial backers saw this construction venture as a poor financial investment and asked to be bought out. Jitendra, without work, ended up collecting unemployment for nine months while he continued to (out-of-

court) negotiate the payments on the first job. In the end he received payment for the work, paid off his old partners, and began the business again as a sole proprietorship.

Jitendra explained his motives for establishing his business as a proprietorship instead of a corporation. One reason was the cost. It costs between \$600 and \$1000 to form a corporation and to him every dollar he could save in the early years of his business was important. A second reason was that as a corporation if he transferred money from the business to himself he had to account for it as a salary and it was taxed. Therefore, even if the business did poorly and lost money his salary would be taxed. The major benefits that a corporation provided, the reduced liability (corporate veil) and the tax laws would have little effect on him during the early years. In all instances he would have to sign for his business liabilities personally and he felt that the double taxation of his and the company's profits would cause him to incur greater taxes.

The first two years of existence for the Shah Construction Company was a time of significant change for Jitendra's lifestyle. Jitendra had confronted his family about the move from Volpe and he had felt comfortable about their economic standing, but his wife still felt that the move was a risk. She had become accustomed to the steady income from his work at Volpe and was worried about how they would get along without this salary. Another change that occurred

was in their social life. In the first two years there were few weekends that were not spent doing estimating or some other type of company work. Friends began to disappear either because little social exchange could take place or they were concerned that they would be asked to become financially involved. Jitendra also found that his day to day responsibilities changed from very specific tasks at Volpe to very general ones in his own business. He found himself visiting sites, the bonding agent and the baker during the day and doing estimating and bookkeeping at night. In the beginning he did not even have a secretary and the paperwork that went along with the jobs became overwhelming. Today, the operations of the business have been smoothed out and the family insecurities have been resolved but the remembrance of those hard times still exists.

To Jitendra, the individual's integrity, engineering knowledge, and management ability are the three significant determinents in the success of a construction venture. A person must be respected both by his or her customers and the company's workers. Respect cannot be bought, it must be earned by the demonstration of both a sound moral character and a strong personal integrity. Secondly, the person must have an understanding of the life cycle of a construction project. The individual must determine which projects are the best to bid, how to estimate and bid the projects, and then be able to construct the projects within the budget and on time. The ability to manage people is also a necessity.

A person must be able to motivate his or her workers allowing the goals of the workers to be satisfied while at the same time satisfying the company goals. The selection and hiring of the right people is a critical attribute of the management ability.

Jitendra did not feel that the age of an individual was a critical factor in determining the success of a business even though he did feel that many of the qualities mentioned above do improve with age. He felt that if a young person had a knowledge of the building process, a strong management ability, was mature and respected by those that s/he had to work with, then the person had as good of a chance of success as any other individual. A quality that might have to be included when discussing younger people is confidence in their knowledge. Because of the fact that these younger contractors may have to interact with bankers and bonding agents much older than themselves the confidence that they display of their engineering knowledge will affect the respect that is received from the respective banker or bonding agent.

Jitendra felt that the amount of capital that is needed in the initial start-up of a construction business is determined by the experience of the individual and the perceived competition. He felt that it was first necessary for a person to determine how they are going to get their work, and secondly to measure the competition. Jitendra does mostly publicly bid work and for him he needed enough capital to cover his bidding costs until he got some work. He felt

that people with experience can capitalize their firm for less money because they have enough contacts and knowledge to put together quicker, less cost, and possibly more accurate bids.

Shah Construction is today solely involved with public work. Jitendra feels uncomfortable with private sector work because of the risks of the owner not being able to receive financing and being unable to meet the payment schedule. Another problem with private sector work is that the owners do not always hire competent designers or really understand the construction process. Many times they do not completely understand what the finished product will be until they see it constructed. Because of this the number of change orders increases drastically leading to a substantial increase in construction cost and again possible financial problems.

Jitendra does see the future of the construction industry as looking promising with enough work available to support other contractors. He continues to see the private sector as a problem area and wishes that the contractors would unite to insist that private owners prove adequate financing before entering into a formal contract. He sees both large and small contractors as existing in the future and sees no way that the larger contractors will be able to capture all the work. He continues to see successful small contractors expanding to larger work opening up markets for new contractors to begin. To Jitendra the construction industry is a viable

career for the future.

2.6.2 Shah Construction Company Discussion

For three generations a family construction business has been a part of the Shah family. This background was of considerable importance in Jitendra's decision to have his own business, either in India or in the United States. When Jitendra came to the United States he realized that he would be delaying the start of his own business, but he felt that he needed the necessary capital. Jitendra also found later that his work experience provided numerous business contacts and also served as a reassurance that he was making the right decision.

Jitendra's case is unique in that he did not become dissatisfied with working for a larger business and then decide to start his own business, but had made this decision from the beginning. He worked at Volpe only to familiarize himself with the United States construction industry and to acquire the necessary capital. Later he did realize that there were other benefits to having worked for Volpe, such as the partners he met, business contacts, work experience, etc.

Jitendra had the most difficult transition period of the different contractors interviewed. This occurred for a number of reasons. One was that he started his business in 1974 which was at a time of a recessionary economy. A

second reason was that he had very little capital and had to depend completely on his two partners. When they decided they wanted to get out he was unable even to support his family for a short period of time and had to go on unemployment. The last reason, where his first job went sour, can be classified as bad luck. The first job received is always critical to the new venture and if a lengthy negotiation has to take place it can be extremely difficult for the fetal business to carry on.

Jitendra experienced both the financial and the family risks inherent in the start of a new business. He became extremely committed to his work and much of the time that he used to spend with his family was lost. His wife disliked the hard times that were gone through having been accustomed to the steady income from Volpe. It actually seemed that Jitendra and his family were striving for two different levels of need, his family for the security needs and Jitendra for the need of self-esteem.

Jitendra's description of the necessary qualities of an individual to successfully start a construction business seemed valid. To elaborate further would be to state that these qualities must be provided for in a business and if one individual does not have them all then s/he can and must hire the right people. Jitendra's comments on the age of the entrepreneur and its effect on the success of the venture are perceptive. The age of the entrepreneur should not effect the success of the venture, but the

entrepreneur must sell this fact to the customers and to the venture capitalists.

To some degree, Jitendra's belief that private work is too risky a venture has some substance, but should be taken only as problems to overcome. It is probable that his response to the private sector is colored by the experience of his first job. It seems limiting that a contractor would totally remove themselves from the private market because of these difficulties encountered. The private sector allows for negotiated contracts and a good chance for return work without all the costly bidding that goes on in the public sector. This gives a small contractor the chance to broaden its marketing base and above all removes them from a strict dependence on the spending policies of the government.

Jitendra sees the future of the construction industry as good and himself has benefited from the ownership of his own business. He has enjoyed the diversity in his daily work and enjoys the full control and financial rewards of business ownership. To him the ownership of a small construction company is a rewarding and viable business alternative.

2.7 Comparative Analysis

The backgrounds of the individuals interviewed covered a rather broad spectrum of family histories, educational development and work experience. The purpose in exploring these aspects of the individual is to gain an understanding

of the correlation between the background of the individuals and what motivations are felt, risks and benefits perceived, and what the individual emphasized as important to the success of a construction venture. The history of the different individuals and the other points discussed are displayed in Table One.

When a person makes a decision to start their own business, they are entering a realm of living that, in our lifetimes, is becoming more and more unusual. Past generations entered small business ventures more readily because the economy of the times accepted this as the usual path of subsistence. Today, business ventures of any sort are considered risky, financial backing is hard to come by, and competing with larger firms is always a concern. Although the construction industry is less prone to suffer from these risks, there is still considerable amount of preparation that should be done and the motivation must be strong enough to carry through the initial stages. For most of the individuals interviewed, their motivation was very clear and prominent in their minds.

C.Q., Shah, and Moscone all spoke of a need, at a specific time in their professional career, when control over decisions being made was necessary and they mentioned this as the strongest motivator when they actually made the move to start their own business. The over-all desire for their own business, however, came for different reasons. For William Cress of C.Q. Construction, being a contractor and owning a

construction business was a means to have over-all responsibility for the building of larger structures. Jitendra Shah's motivation to start his own business originated in his family background which has for three generations owned construction businesses. Donald Moscone saw it as the logical culmination of twenty-three years of successful work for other firms and after he had acquired the capital and the experience, the ownership of his own business was the next step. Donald, like Arthur Gutierrez, was also motivated to leave by a growing dissatisfaction with work in a larger firm. They both had reached high level management positions of significant responsibility and saw little room for upward mobility and at the same time began to question the salaries they were receiving. They both had also begun and managed construction divisions and from this had derived considerable experience and self-confidence. All of the contractors in some way drew reference to financial reasons as a motivator to start their business, but only Rostonzo and Lavoie and P.J. Stella specifically indicated the financial incentives of ownership as a prime motivator. Paul Stella talked about how when he was working for other firms he would work longer hours and receive little or no benefits for his efforts and now by working for himself he directly receives the benefits of his efforts. Gutierrez, Stella and Shah all specifically mentioned being motivated to start their own business because of the ability to run the operations in their own way. They looked to personal ownership to allow them to do the work they wanted to do, to impose their own ethical standards, to choose the people they wanted to work

with and to therefore, keep the goals of the organization consistant with their own personal goals.

In this study all of the men were working in the construction field and in the area that they would be starting their business. Donald Moscone commented that it would be very difficult for a person to start a construction business in an unfamiliar area because of the tremendous amount of contact that is made with the community. All of the men had contacts with potential customers, suppliers, financiers, and bonding companies, and had clearly defined their potential business ventures. The contacts that the contractors had seemed to be fairly proportionate to the number of years that had been worked and to the level attained within the firm. For example, Arthur Gutierrez and Donald Moscone who had attained high level positions in their firms were able to take quite a number of their division's key employees to their new business. Other contractors like Paul Stella and Nicolas Rostanzo were able to use their years of experience to know who to call to get low cost, good quality subcontractor bids, etc.

One important issue that should be explored before starting a business is the role the family will play, not only in the initial stages but throughout. In large business organizations, there is little room for an employee's personal life to interweave with his/her professional life. Children are most often only the recipients of their parent's wages and have no participation in the actual work. This split in family roles

causes problems that have only begun to be considered but it also offered compensations. For the most part, time spent on the job could be calculated and was relatively short. Also the wages brought in were steady, so that in general, life was fairly secure. Of course with the start of a small business, this security is stripped rather abruptly, that is why it is of major importance to prepare the family for the transition.

The contractors had several different ways of considering their family's role in the new business. In the case of C.Q. Construction and P.J. Stella, the role of the spouse was essential to the start of the business. Because William Cress' wife worked full-time they were able to make ends meet while he did his best to get the business started. Adrienne Stella worked full-time with Paul in starting the P. J. Stella Construction Corporation. In the case of Rostanzo and Lavoie, the men waited until after their families were mature and the children gone before they started the business. Donald Moscone started and established business on his own with his children working now as employees with the possibility of later becoming owners. Both Arthur Gutierrez and Jitendra Shah started their businesses with little or no family involvement. Jitendra started his business almost against the wishes of his wife who questioned the ability for it to succeed. Arthur's wife agreed with his move to start the business, but has taken no part in the business operation.

An advantage of the construction industry is that it does

not require a large investment of capital and that it is possible for only one person to establish a business. In this thesis three of the firms were started by one person and the other three were started by two. Several different techniques were applied to ease the financial burden of starting a construction business. In the case of C.Q. Construction, William Cress worked initially full-time at the business with his partner coming on board after business became steady enough to support two salaries. Arthur Gutierrez continued working as a consultant part-time at his old job for six months to allow his business to become established. In the case of Rostanzo and Lavoie they retained their daytime jobs and worked nights to set up their business. Because of the commitment this took they had to be very careful not to jeopardize their other work. P.J. Stella, Moscone and Shah were all established with the full-time commitments of their founders. Shah was assisted by two strictly financial backers which left him during the hard times that he experienced. Of the different methods used Donald Moscone's would probably be considered the most ideal. He was able to single-handedly establish his business, hiring full-time staff and professional consultant immediately. Of course this was the most capital intensive route and required sufficient assets. Paul and Adrienne Stella established their business similarly except that they committed both their efforts and were much more cautious with their expenses. They ran the operation at first out of their home and maintained a minimal staff and equipment inventory. Jitendra Shah's method was in this case the least desirable, but seems to have worked. Hindsight would say that

greater care should have been taken in the choice of a financial backer and of course, in the time to begin operations. A venture capitalist should be willing to offer management advice and should be willing and able to stick with a firm during the tough times before it becomes established.

Once the initial period of adjustment is over and the business is stabilized, people ususally begin to look for other positive motivators to keep their morale intact. This can come through an ongoing satisfaction derived from successful projects; it can take the form of financial gains or it can be the enjoyment of family participation. Job satisfaction was a motivator acknowledged by everyone as a definite benefit. They all seemed to enjoy the diversity of the tasks involved with operating a small business as well as the many odd hours that were worked. For instance, Paul Stella had in the past spent much outside time in construction related activities. He felt a great deal of satisfaction now knowing that this "outside time" was now actually inside time, directly benefiting his business.

Closely related to job satisfaction and to some, a reason why they find their job more satisfying, is the increased independence and control that they have experienced in their new ventures. People like Donald Moscone, who admit to having a big ego, enjoy being able to run their business their own way. Paul Stella had always wanted to run his jobs open shop and now he is able to do this. To Arthur Gutierrez, business ownership is financially rewarding. He enjoys the fact that

he is building up equity in a business that he ultimately owns. Others talked about how they enjoyed business ownership because for one, their families could be involved in it, and two, that the established business could be handed down to their children. William Cress summed up his feeling rather simply by saying that he has always received extreme satisfaction from building things and now with his own construction firm he can build bigger things.

Whenever one discusses the advantages of such an undertaking as a small construction business, lurking in the background is a discussion on the disadvantages or the risks that such a venture implies. As with any risk, the more knowledgeable and prepared a person is for the venture, the more the odds are in his/her favor. When discussing risks with these contractors, they all were prepared to come to grips with the financial insecurities that would probably arise. They went into the business with a certain amount of capital and many tried to buffer themselves and their family for the time when income would be scarce. This response was fairly consistent.

What most of them had some difficulty overcoming was the psychological risk of failure. Although many prepared for it in a financial way, they had trouble seeing themselves as failing in business. Their acknowledged confidence levels were very high and perhaps to keep their own morale intact, they had to dismiss the idea of failing. This, of course, makes the psychological risk all the more real. It seemed that, with the folding of any of those businesses there would be quite

a bit of damage to the person's self-confidence.

Another risk that many of them only considered from the financial standpoint was the damage to their relationships with their families. To varying degrees, each person set money aside to buffer the initial impact and prepared their families for the burden well in advance. Except for Jitendra Shah, there seemed to be little financial damage. However, most of those interviewed did voice concern about the missed vacations, and time lost on a day to day basis. The degree to which their relations with their families were strained varied and seemed to be affected by the age of the person. The younger families like Shah, Cress of C & Q and Gutierrez tended to suffer more than the older families like Donald Moscone's. Another factor that effected this was the amount of participation that the spouse and children were able to maintain. Of course, in the older age families, the children were more apt to be able to work with the business and the spouse would be more apt to be free from the rigors of parenting.

When looking back at all the possible complications that can arise when setting up a business, it seems that the ability to look beyond the obvious is very important. In the case of those interviewed this meant being able to see past the financial aspects into the social and psychological and being able to balance their importance.

When asked to give an opinion on what sorts of skills, knowledge and over-all ability were important in a person starting a

business such as theirs, all of those interviewed were very willing to comply. In retrospect, it seems that most of what they had to say was very much based on their own experiences when starting out. If they felt inadequate in one area, then this was what they stressed as important to obtain. But also, interestingly enough, if they felt very sure and proud of their ability in another area then this was also stressed. For instance, P.J. Stella's problems with economic conditions, which occurred partly through his own lack of foresight, led him to express the importance of this kind of knowledge. On the other hand, with his vast experience in field work, at which he was very successful, he repeatedly stressed this as important.

Another example of this was Nicolas Rostanzo. He stressed accounting and bookkeeping as important skills to possess. In the course of the interview, he repeatedly referred to these and the dangers of not being adequately prepared, evidently having some problems in this area himself. But he also talked of the need to be a good manager, an area that he obviously felt successful with. Actually, management skills came out in all the interviews as being extremely critical to the ongoing success of the small business.

All of those interviewed, no matter what their particular experience, talked at some length about the need to be able to both handle the actual projects and to manage the day to day tasks that come up in the functioning of any business. When working for an employer, especially in a larger firm, people

are most often buffered from these management tasks as jobs become more and more specialized. So, for these people, most coming from a large firm, this aspect of the business was a surprise and for them a very pleasant one.

Another fairly consistent observation made by those interviewed was the need for self-confidence, especially, as many noted, for those younger and more inexperienced. This confidence is not only for one's own benefit in getting through tough times but also for the benefit of financial backers who have to believe in the ability of the business to pull through.

The last area touched on in the interviews was the future of the construction industry. According to all those interviewed the future looks fairly positive, although some saw the immediate future as somewhat slow. C & Q Construction has seen a slowing down in new construction work with a movement towards renovations but Gutierrez, P.J. Stella, and Moscone have all the new work they can handle. But all of them, whether their prognosis was positive or negative for the immediate future of the small construction industry, saw a definite problem arising in financial backing. The sureties, because of the economy, are very conservative in their dealing and are placing more and more restrictions on the newer firms, making it difficult for them to have the creative flexibility, which is what often keeps a new venture afloat, in acquiring new work. Because of this limitation, which is unique to the construction firms, many of those interviewed felt that now may not be the best time to enter the industry.

TABLE ONE

COMPANY	FAMILY BACKGROUND	EDUCATION	EXPERIENCE	MOTIVATIONS TO START BUSINESS	PERCEIVED BENEFITS	PERCEIVED RISKS	YEAR STARTED	MAJOR EMPHASIS AND COMMENTS
C-O CONSTRUCTION CORPORATION	Father worked for a construction firm	Bachelors degree in Economics	Six years work experience, primarily estimating	Desire to always have own business Desire to be a contractor	Increased job satisfaction Greater self-esteem	Financial due to reduced salary and benefits Psychological Risk	1977	<ul style="list-style-type: none"> See immediate future of construction industry as gloomy Now wants greater number of hours Sees transition by using partnership arrangement with his wife working
GUTERREZ CONSTRUCTION COMPANY, INCORPORATED	Father formally educated	Masters degree in Civil Engineering	Eighteen years work experience Estimating Project Manager Upper Management	Independence Control of own employment Financial Desire to be a contractor Job dissatisfaction	Financial Increased job satisfaction Greater job control Establish business equity	Financial possible loss of investment Psychological Risk	1977	<ul style="list-style-type: none"> Owner must be able to deal with people Work experience, "street wisdom" and contacts are essential Sees transition by doing consulting work Sees transition by doing consulting work Suggests: 1) Work at a large firm 2) Work at a growing firm 3) Then go out on own
MOSTARD & LAWRIE CONSTRUCTION COMPANY, INCORPORATED	Father worked for a construction firm	Associates degree in Civil Engineering	Twenty-five years work experience Estimating Project Manager Project Manager	Financial Downside	Increased job satisfaction	Financial possible loss of investment	1977	<ul style="list-style-type: none"> Wants greater number of hours Sees transition by doing consulting work Must be innovative
P. J. APOLLA CONSTRUCTION CORPORATION	Father was a self-employed plumber	Education received through evening program Bachelors degree in Civil Engineering Masters degree in Civil Engineering	Sixteen years work experience Field Engineer Project Manager	Independence Control of own employment Financial Desire to be a contractor	Family Involvement Greater job satisfaction Greater job control Establish business equity Increased job satisfaction	Financial both investment and reduced salary Psychological Risk	1971	<ul style="list-style-type: none"> Self-confidence essential Understand the construction of buildings Sees transition by wife working on start up Sees transition by wife working on start up Select a time to start when the industry is on an up-swing
HARCONE, INCORPORATED	Father was a self-employed carpenter	Education received through evening program Bachelors degree in Civil Engineering Masters degree in Engineering	Twenty-three years work experience Field Engineer Superintendent Upper Management	Desire to always have own business Desire to be a contractor Job dissatisfaction	Greater job satisfaction Family involvement Greater job control Establish business equity Increased job satisfaction	Financial possible loss of investment Psychological Risk	1977	<ul style="list-style-type: none"> Latter, tax accountant, bonding agent helped to ease the transition Even proven track record with large firm must be re-established on own Essential skills: 1) Knowledge of engineering and construction 2) Management 3) Finance 4) Marketing 5) Public Relations
SHAW CONSTRUCTION COMPANY, INCORPORATED	Father owned a construction business	Bachelors degree in Civil Engineering	Five years work experience, primarily as field engineer	Desire to always have own business Desire to be a contractor Job dissatisfaction	Increased job satisfaction Family involvement Greater job control Establish business equity	Financial due to reduced salary Family Risk	1974	<ul style="list-style-type: none"> Had difficult transition due to economic conditions and financing Are not critical if have knowledge and self-confidence Amount of initial investment dependent on experience Critical personal qualities: 1) Engineering Knowledge 2) Management ability 3) Self-confidence

CHAPTER 3: CONCLUDING REMARKS

In the process of interviewing various contractors and through the research done in published works, several trends and attitudes emerged as being constant. The contractors with the professional backgrounds, such as Donald Moscone and Arthur Gutierrez, who had both reached fairly high levels in their respective emoloyments, did not initiate their business for financial reasons so much as they were pushed from their jobs due to job dissatisfaction. This job dissatisfaction was caused by a perceived lack of promotional opportunities, type of work done, and a lack of rapport with their supervisor(s) and co-workers. This finding is in fact consistent with a study conducted by the School of Business and Administration of Saint Louis University. (J. Sm. Bus. Mgmt., January, 1980)

When considering the actual level of education attained by a specific contractor it was found that the attitudes of those who had received full-time formal education were different from those of a contractor who studied nights. The latter contractors for the most part were working in the field while attending classes, and even though they attained professional degrees they still associated themselves more with their respective employment position. The effect of this is that those who received the full-time education tend to concentrate on the forward decision-making aspects of the business while delegating authority to others for the actual day to day

management of the projects.

Because of their identification with the trades, the other contractors were less able to disassociate themselves from the daily activities on the job site. This strong bond makes it difficult for the contractor to either delegate authority or objectively handle decisions. Problems can arise from this both in the field and in the office. The contractor, by constantly feeling the need to "check-out" the work in the field, leaves little time for managing the business. This situation can also create bad feelings among the employees who feel that their work is always being questioned.

Two other comments should be made about a strong owner's involvement in the field operations of each on-going project. A positive comment is that it insures that the owner's construction methods are practiced and standards of quality are met. A negative aspect is that the growth of the company is limited to the number of projects that the owner can visit, and requires the contractor to either forego the business aspects of the firm or to work longer hours.

An observation in reference to the number of hours worked and daily practices should be noted. Those contractors who had held high professional positions in larger firms tended to treat the operation of their firm in almost the same manner. They maintained a large number of office hours, held regular conferences and delegated responsibility to others. They did visit job sites, but concentrated on the business aspects

of the firm. They tended to still work a large number of hours, but not really any more than they worked in their past employment. This is a contrast to the other contractors who were experiencing responsibilities and activities much different than in their past work and therefore, required a much longer day. They felt uncomfortable passing on responsibilities to others and wanted to be physically involved in all aspects of their business.

Each contractor repeatedly stressed the importance of being involved in a particular area of construction before starting a business there. Every contractor spoken to had first worked in the area before starting their business. This was important as they became familiar with local suppliers, competition, customers, and politics of the area. Much personal contact goes on in the construction industry, which makes it difficult for a new contractor to go into an unfamiliar area and compete with the locals. This is different from the manufacturing ventures which can shelter their core technology from most of the effects of the environment. In many cases manufacturers can buy and sell their goods in places other than where they are manufactured.

Everyone seemed to have a list of specific personal qualities that were felt to be important for the successful start of a construction venture. Basically, four attributes could sum up those that were discussed. A knowledge of construction and how a project goes together was considered essential. People may have different specialities, but it was considered important

to understand the field well enough to differentiate the good from the bad projects and to decide on an appropriate mark up. A strong business capability was also recommended. A person should be able to choose and understand the best form for the business organization, to evaluate the business environment of the firm and to decide company policy. Also discussed was the importance of being a good project and company manager. People, particularly in construction, have got to be motivated and trusted. Nowhere in any other industry is so much responsibility delegated to the front line field organization. The last quality that was discussed was the importance of personal self-confidence. This has got to come from within the entrepreneur and is essential to carry him/her through the tough moments that will undoubtedly be faced.

Knowledge of the state of the economy was determined essential in the starting of any business and in particular, for construction. The construction industry is drastically effected by the economy, and considering its present state, each contractor strongly recommended not initiating a business at the present moment. Because each contractor specialized in a different aspect of the construction sector, each predicted the economy to have a different effect on their business. In general, a slowing down in building was predicted for a relatively short period of time with business picking up thereafter, with a good atmosphere to begin a venture. Bonding capacity was considered the toughest barrier in beginning a construction business with particularly tight restrictions now being placed on the contractors. Considering this, if it were possible for a new

contractor to establish a business it would be difficult to attain the required bonds. Every contractor had noticed a gradual tightening of their restrictions. Hopefully, this trend will be eased by the business pickup after the current recession, otherwise, it will be extremely difficult for an unestablished contractor to get an adequate bonding capacity to subsist.

SUMMARY

This thesis has examined the process of entering the construction industry by first looking at the creation of a general business venture and then specifically, a construction venture. A case study approach was used to examine this process where six firms, located in the Boston, Massachusetts area, were studied, all having been started in the last ten years. In developing the case studies, particular attention was paid to family history, educational background and construction experience. These factors were used as an interpretive base when evaluating responses made by each contractor.

The first part of the thesis examined the establishment of a small business. It looked at some factors that could be considered to minimize the risks and maximize the benefits. General business ventures have been studied because it is the belief of this thesis that a construction venture is, in essence, an extension of a small business venture. The initial preparations, the inherent risks and benefits that are characteristic of the small business industry are also very much part of the construction industry.

The next section of the thesis included the actual case studies of the six firms interviewed, plus a discussion of each and a comparative analysis. These studies examined the particular methods each firm employed in the initial stages of their business.

Through the documentation and interpretation of the case studies along with the research of published material pertaining to small business ventures, this thesis accomplishes its goal of clarifying the process of entering the small construction industry.

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DEPARTMENT OF CIVIL ENGINEERING
MASSACHUSETTS INSTITUTE OF TECHNOLOGY
CAMBRIDGE, MASSACHUSETTS 02139

Mr. Michael Erlich
Associate General Contractors, Inc.
220 Boylston St.
Chestnut Hill 02157

Feb 12, 1971

Dear Sir:

The following is a request for the assistance of the MIT.

As a Graduate student in Construction Engineering and Project Management I've chosen to write my Master's thesis about the Institutional Barriers of the Construction field. The MIT can be of substantial assistance by providing a list of approximately 20 contractors who would be willing to talk about their business experiences. Because I will be looking mainly at the founding of a construction business I would prefer to speak to contractors who have started their business within the last 5 years. Thank you for your prompt consideration on this matter.

Frederick A. Sullivan

FREDERICK A. SULLIVAN

Student, Massachusetts Institute of Tech.

Note: Please forward information to: 17 Alden St.

Quincy, MA 02269

(32-1000)

DEPARTMENT OF CIVIL ENGINEERING
MASSACHUSETTS INSTITUTE OF TECHNOLOGY
CAMBRIDGE MASSACHUSETTS 02139

ROOM 1-

PHONE (617) 253

April 16, 1980

P.J. Stella Construction Corporation

50 Main Street

Wakefield, MA 01862

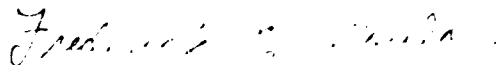
Dear Mr. Stella:

As a graduate student in Construction Engineering and Project Management, I've chosen to write my Master's Thesis about Construction Entrepreneurship. I'll be looking at what the requirements are to enter the Construction field, specifically things like money, expertise, motivation, etc.

An important source of information for this paper will be from conversations with today's Contractors. Only by talking to you can I be absolutely sure that the major barriers I note are the ones Contractors really experience. I'm also sure that in our conversation you'll be able to bring up other issues that are not mentioned in writings about the Construction profession.

I spoke with Michael Erlich of the AGC and he feels that your experience are similar to what I am studying. If you could possibly assist me, we can meet at a time most convenient to your schedule. I'll give you a call in a few days to get your answer. I'd greatly appreciate your assistance in this matter.

Sincerely,



Frederick E. Gould

Student - Massachusetts Institute of Technology
328-1824

INTERVIEW

- 1) Will first explain the purpose of the Interview.
 - a) Research of Topic
 - b) Using interview to explore sources not documented.
 - c) Interviews will create actual case studies.
- 2) Will give overview of discussion.

3 Phases of Interview

Preparation	Transition	Present/Future
experiences before	how did business start?	explanation of firm
	Ups+Downs of early existence	future of small construction Industry
		advice to new

Interview Method	Question
Open Question use encouragements periods silence	3) I would like to start our discussion by talking about your experiences before you started this business. Could you tell me about some of the experiences you had when growing up that helped prepare you for this type of work.
respondent antecedents or encouragements if mention any of these if do not ask as closed questions	Insure include: Educational Experiences Construction Experiences Business Ventures Traits of Independence Family Ties
Open Question (same as above) if does not bring up ask as closed question	4) Would you please elaborate on your employment (if employed) right before you started this business. Insure include: Dependence on salary Hapiness with job Need for independence

Interview Method	Question
Open Question	<p>5) What we have just covered is the first phase of our discussion and it will serve as a foundation for the rest of our talk. What I would like us to next do is talk about your move from your past job to this.</p>
<p>As above, Encouragments Extensions Echo-ifmention any desired points.</p> <p>(Closed questions other wise)</p>	<p>Insure include: First thoughts of a switch What preparations made What markets found Did you have to borrow Did you have to buy equip. Legal assistance Any family resistance How long until secure Explain Ups+Downs</p>
Open Question	<p>6) Tell me some about your present business. Include items like its markets, your involvement and your relationship with your family and friends because of it.</p>
(As above)	<p>Insure include: Type work done Day to day chores Seasonal variations Market involved in Family involvement The business's sucess New technology used Skills learned because of it</p>
Open Question	<p>7) What would you do differently if you were to start a business tomorrow-or would you not.</p>
(As above)	<p>Insure include: Market involved in New Technology Financing Partners Schools or Trades Equipment</p> <p>What advice would you give to someone else?</p>
Open Question	<p>8) The last general topic I would like you to address is the future of the small construction industry. Specifically how do you feel it will fare with respect to the major issues facing our nation.</p>
(As above)	<p>Insure include: Energy Costs Inflation Interest Rates Large Corporations vs Small Unions</p>
<p>Use: Summary's to synthesis Clarification if needed Confront if inconsistent</p>	

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